

IN THE DRAWINGS

A revised copy of Figures 1, 5, 6, 7, and 8 are enclosed for the approval of the Examiner. The proposed changes are made in red ink in accordance with 37 CFR 1.121 (d). Formal drawings will be submitted subsequent to the Examiner's approval of the proposed changes.

IN THE SPECIFICATION

The following is a clean, unmarked copy of the revised paragraph beginning at page 5, line 22 and extending through page 6, line 6, adding the reference number 210 to "twisted pair":

A
D+ 204 and D- 206 signal wires carry the data signals of the USB wire segment 200 as a differential pair. In most applications, D+ 204 and D- 206 signal wires are implemented as a twisted pair 210 within USB wire segment 200. Two kinds of USB data transfers are supported, referred to as USB full-speed mode and USB low-speed mode. The USB full-speed mode transfers data at a 12.0 Megabit per second (Mb/s) signaling bit rate. The USB low-speed mode transfers data at a 1.5 Mb/s signaling bit rate. Both modes can be supported in the same USB system by automatic dynamic switching between transfers. A non-return-to zero inverted (NRZI) clock travels down the D+ 204 and D- 206 signal wires along with the data.

The following is a clean, unmarked copy of the revised paragraph beginning at page 12, line 13 and extending through page 13, line 4, correcting the reference "power switch 510" to read "power switch 512":

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Conversely, when baseband signal controller 548 de-asserts WAK# on WAK# signal line 554, power switch 512 may act on this advisory signal by de-asserting the HPWR signal on HPWR signal line 516. In other situations, power switch 512 may de-assert HPWR in response to requirements of host 510, such as when a data transmission is finished. When HPWR signal is de-asserted, pull-up control 544 may then disconnect the Vbus signal from the Vbus signal wire 518 to the end of pull-up resistor 546 opposite from the D+ signal wire 524. Pull-up resistor 546 then no longer causes a positive offset on the D+ signal wire 524. Since the standard USB pull-down resistors 560, 562 act to pull the D+ and D- signals, respectively, towards ground, the host root hub 528 cannot recognize that logical attach/detach function 540 is, in fact, attached. This situation is one form of a logically detached state. Pull-up control 544 has denied a biasing voltage from pull-up resistor 546, and the resulting lack of offsets on the D+ signal wire 524 and D- signal wire 526 causes a logically detached state. This logically detached state is indistinguishable from a physically detached state from the viewpoint of the host root hub 528.

The following is a clean, unmarked copy of the paragraph beginning at page 16, line 5 and extending through page 16, line 17, correcting the reference "pull-up resistors 732, 742" to read "pull-up resistors 732, 734":

Referring now to Figure 8, a schematic diagram of an IEEE 1394 bus pull-up resistor bias source is shown. Node Z 740 may detect the physical attachment of node Y 710 due to a voltage bias provided by twisted pair bias source 712. Twisted pair bias source 712 includes a pair of pull-up resistors 732, 734, which supply a biasing voltage TpBias to a twisted pair within cable segment 730 when node Z 740 is attached to node Y 710 with cable segment 730. Biasing voltage TpBias is split by the action of the pull-up resistors 732, 734, and the pull-down resistors 736, 738, which are connected at one end to AC ground within node Z 740. Port status receiver 742 may note the presence of this split biasing voltage on the twisted pair wires, and indicate this presence to other circuits within node Z 740 as an indication of the physical attachment of node Y 710.

The following is a clean, unmarked copy of the two paragraphs beginning at page 18, line 5 and extending through page 18, line 26, correcting the reference "pull-up resistors 923, 934" to read "pull-up resistors 932, 934":

When the opposite situation is required, where a logical detachment of node Y 910 to node Z 940 is required by node Y 910, called a "local detachment", circuitry within node Y 910 may de-assert a pull-up enable signal on pull-up enable signal wire 928. This de-assertion may cause pull-up control 920 to disconnect biasing voltage TpBias from one end of pull-up resistors 932, 934. This in turn removes the offset voltage on the twisted pair wires, as the pull-down resistors 936, 938 will pull the twisted pair wires down towards ground. This removal of the offset voltage is detected by port status receiver 942 of node Z 940. The new output of port status receiver 942 may be used by other circuitry within node Z 940 to indicate that node Y 910 is logically detached, even though node Y 910 remains physically attached to node Z 940 via cable segment 930.

Similarly, when a logical detachment of node Y 910 to node Z 940 is required by node Z 940, called a "remote detachment", circuitry within node Z 940 may de-assert a Z pull-up enable signal on Z pull-up enable signal wire 944. This de-assertion may cause pull-up control 920 to disconnect biasing voltage TpBias from one end of pull-up resistors 932, 934. This in turn removes the offset voltage on the twisted pair wires, as the pull-down resistors 936, 938 will pull the twisted pair wires down towards ground. This removal of the offset voltage is again detected by port status receiver 942 of node Z 940.